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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,988	02/02/2001	Gregory C. Weed	IM0877 US CIP	7278

23906 7590 06/18/2002

E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
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WILMINGTON, DE 19805

EXAMINER

HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF=8

Office Action Summary

Applicati n No.

09/775,988

Applicant(s)

WEED ET AL.

Examiner

Cynthia Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. (4 pages) 6) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1-10 is the limit "a near infrared dye photochemical sensitizer which is substantially free of borate anion". Applicants do not define the limits of "substantially" in their specification. On page 2, lines 36- page 3, lines 2, applicants disclose a key aspect of their invention is that certain dyes that absorb in the near infrared and which are substantially free of borate anion are efficient sensitizers of HABIs. The inclusion of GW-186 as found in claims 5 and 7 confuses what is meant by applicants. GW-186 is a tetrafluoroborate salt as disclosed by applicants on page 19, lines 34-37 and on page 18 identified as "Near IR Dyes Within Invention Scope" at line 20. Thus, the examiner is unsure what is meant by applicants by this terminology. It is also possible that claims 5 and 7 are defining a composition outside the scope of the claims upon which they depend. An objection follows directed to this point. Thus, the limits of claims 1-10 are unclear and confusing.

4. Claims 5 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or

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rewrite the claim(s) in independent form. The reasons for this objection are given above if the meaning of "substantially" is meant to exclude the dye GW-186 which is a borate salt.

5. Due to the confusion as to what is meant by "a near infrared dye photochemical sensitizer which is substantially free of borate anion" and GW-186, the examiner makes the following rejection over Showa Denko KK (JP 8-297364) in view of the English translation. Because applicants have not clearly excluded all borate anions by their language, the examiner makes the following rejection to be complete if by "substantially" applicants mean to allow some borate anion compounds to be present and others not. It is not clear which are or are not to be used.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 6, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Showa Denko KK (JP 8-297364) and the accompanying English Translation of this reference (PTO 99-3373). An English translation of JP 8-297364 has been obtained. All reference to pages is in reference to this translation. On page 2 under [Constitution] the instant invention of claims 1-4, 6, 8-10 are disclosed with respect to one species with the exception that the hindered phenol compound or hindered amine compound is not called a chain transfer agent but they are inherently such agents. Table on page 24, No. 8 is an IR dye that specific to the dyes in the instant claims. The choice of photopolymerizing compound, binder and biimidazole compound is set on page 2 each must be present. Thus, the choice of one of nine IR dyes specifically given is held anticipatory of the instant composition. The examples 1-3 starting on page 39 are also held anticipatory of the instant compositions. The instant A is that of (4) N,N-bisaryl wherein the aryl group is an unsubstituted phenyl group, D1 is a heterocyclic ring system having at least one NR₃ group bonded directly to an aryl ring of the heteroaryl ring system with R₃ being an ethyl group, ie C₂ alkyl group unsubstituted, and D2 is a system identical as that set forth in DF-15131 wherein the anion is a discrete borate anion. The examiner makes clear that a biimidazole compound must be present, one of a hindered phenol or hindered amine must be present and photopolymerizing compound must be present in the compositions of Showa Denko KK. The choice of one of nine IR dyes is seen as so small a number as the choice of any one of the eight is anticipatory. It is the only choice to be made. This species anticipates the generic claims 1-4, 6, 8-10 wherein component (C) is present as in the elected species.

9. Claim 3 is objected to because of the following informalities: On page 43, the first two structures need a minus sign on the O single bonded to the ring. Appropriate correction is required.

10. Claim 4 is objected to because of the following informalities: In the fourth structure on page 45 there is a random S in the middle of a single bond. This appears to be a typographical error and should be removed. The third structure is missing a valence bond indicating where it is bonded to the body of Formula 1. Appropriate correction is required.

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11. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 and 2, in defining A under (1), reference is made to substituting with a hydrogen atom. Since substitution is usually the substituting of another group for a hydrogen atom, the examiner is confused by what is unsubstituted and therefore excluded here? This wording is also found for A (2) as well.

12. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On page 42 of the original specification, claim 3 defines R^1 and R^2 confusingly. Is the second hydrogen found just before "AR is an" in reference to these as in the first H? Is this the same group twice? The examiner reads "(C1-C6 alkyl) (C1-C10 aryl)" to be a description of an alkyl aryl group here and not two separate groups since no comma is present.

13. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Because claim 10 reads a composition Wherein the composition... undergoes either ...photopolymerization...or ... photoimaging...", it is unclear whether a process or composition is being claimed. The examiner suggests writing this as a composition that will upon photopolymerization or photoimaging exhibit these properties. The examiner notes "effective" is defined in the specification and has no confusion as to what is meant as to the properties desired.

14. The non elected species wherein (d) is present has not been examined in view of the above rejection because there is no allowable generic or linking claim. These claims have not been examined

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for peel developable systems, holographic systems or photoimaging systems for this reason. What has been examined photopolymerizable systems wherein ethylenically unsaturated polyesters, monomers and non oligomeric, or polymeric ethylenically unsaturated compounds not urethanes, or amides have been searched if they are wet developed, or toned. Because of the Markush choice of (d) or (c) in claims 1, 3, 5, 6-8 and 10, these are broader but are separable. See MPEP 803.02 and restriction practice.

15. Applicant's election with traverse of Species D in Paper No. 7 is acknowledged. The traversal is on the ground(s) that there is no statutory or regulatory basis for the examiner to require restriction to species which are not set forth in the claims. This is not found persuasive because of the reasons set forth in the last Office action and as set forth in MPEP 806.04(e), claims are not species or disclosed embodiments of species but claims are instead definitions of invention. As to the requirement that claims be cited that read on the elected species claims 1-10 read on the elected species but claims 1, 3, and 5-10 are generic to all the species. Claims 2 and 4 are not generic but read on the elected species.

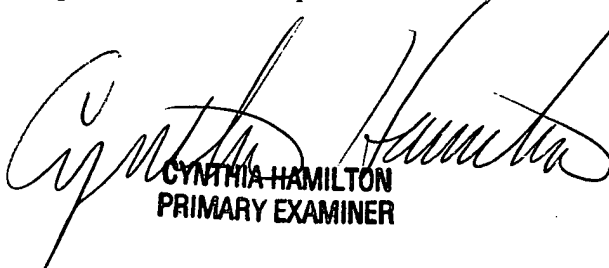
The requirement is still deemed proper and is therefore made FINAL.

16. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 0661.

Cynthia Hamilton
June 12, 2002


CYNTHIA HAMILTON
PRIMARY EXAMINER